UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,397	09/27/2001	Toshiya Takahashi	212643US2RD	9041

22850 7590 05/19/2005

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER	
THOMPSON, JAMES A	

ART UNIT	PAPER NUMBER
2624	

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/963,397	TAKAHASHI ET AL.	
	Examiner	Art Unit	
	James A. Thompson	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 September 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 September 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 43 and 44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 43 and 44 both recite "[t]he computer program product according to claim 39" although claim 39 recites a display method. Claims 43 and 44 are therefore indefinite since there is no computer program product according to claim 39.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 4-7, 9, 12-15, 17, 20-23, 25 and 28-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Steele (US Patent 5,884,056).

Regarding claims 1, 9, 17 and 25: Steele discloses an apparatus (figure 2 of Steele) comprising a transmission request receiving unit configured to receive a transmission request for the plurality of still pictures (figure 4(24) and column 6, lines 13-15 of Steele); a transmission sequence determining unit configured to determine a transmission sequence for the plurality of still pictures which is different than the sequence of the still pictures in the picture stream (figure 4(26-30) and column 6, lines 14-21 of Steele); a transmission unit configured to transmit the still pictures according to the transmission sequence determined by the determining unit (figure 4(32) and column 6, lines 21-25 of Steele); and a still picture control unit (figure 2(12) of Steele) coupled to and configured to control the receiving unit, the determining unit, and the transmission unit (column 5, lines 22-28 of Steele). The transmission request unit, transmission sequence determining unit, and the transmission unit are portions of physically embodied software controlled by a CPU which reside on the computers requesting and providing said plurality of still pictures from said picture stream (video) (column 5, lines 10-21 of Steele). The computers are coupled together and controlled by the physically embodied software on a central server (figure 2(12) and column 5, lines 22-28 of Steele).

Further regarding claim 9: The units which comprise the apparatus of claim 1 provide the corresponding means which comprise the apparatus of claim 9.

Further regarding claim 17: The apparatus of claim 1 performs the method of claim 17.

Further regarding claim 25: As discussed above, the units of claim 1 are embodied as software and are thus the corresponding computer code which comprise the computer program product of claim 25.

Regarding claims 4, 12, 20 and 28: Steele discloses a memory unit coupled to the control unit and the transmission unit (column 4, line 64 to column 5, line 2 of Steele), and configured to store the still pictures as a transmission stream in the sequence determined by the determining unit (column 6, lines 16-22 of Steele). In order to produce a transmission stream of the still pictures (column 6, lines 16-22 of Steele) and transmit said stream over a server-controlled network (column 4, line 64 to column 5, line 2 of Steele), a memory unit on the client computer (figure 2(10) of Steele) which stores the transmission stream for transmission is inherent.

Regarding claims 5, 13, 21 and 29: Steele discloses a picture stream input unit coupled to the still picture control unit (column 5, lines 22-27 of Steele) and configured to input the picture stream (column 6, lines 6-8 of Steele); and a thumbnail picture extracting unit coupled to the still picture control unit and the still picture input unit (column 5, lines 22-27 of Steele), and configured to extract the plurality of the still pictures from the picture stream input to the still picture input unit (column 6, lines 13-18 of Steele). In order to display the picture stream (column 6, lines 13-18 of Steele), extraction of the plurality of the still pictures from the picture stream is inherent. Otherwise, there is nothing to display.

Regarding claims 6, 14, 22 and 30: Steele discloses a picture stream control unit coupled to the picture stream input unit and the still picture control unit (column 5, lines 22-27 of Steele), and configured to transmit the transmission request received by the receiving unit to an external apparatus (column 6, lines 12-17 of Steele), and configured to control the picture stream input unit so as to input the picture stream (column 6, lines 13-18 of Steele).

Regarding claims 7, 15, 23 and 31: Steele discloses a first memory unit coupled to the still picture control unit and the input unit (column 5, lines 22-27 of Steele) and configured to store the input plurality of still pictures (figure 7 and column 8, lines 14-18 of Steele); and a second memory unit coupled to control unit (column 5, lines 22-27 of Steele) and configured to store the plurality of still pictures as a transmission stream in the sequence determined by the determining unit (column 6, lines 21-25 of Steele). In order to display the input plurality of still pictures (figure 7 of column 8, lines 14-18 of Steele), a memory unit on the user's computer is inherent. Further, in order to transmit the transmission stream of the plurality of still pictures (column 6, lines 21-25 of Steele), a memory unit on the serving computer is inherent. Otherwise, there is no means with which to contain the digital data of the transmission stream on the sending and receiving end, both of which are necessary in a networked computer system (column 5, lines 22-27 of Steele).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 2, 8, 10, 16, 18, 24, 26 and 32-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steele (US Patent 5,884,056) in view of Hori (European Patent Application Publication 1 024 444 A2).

Regarding claims 2, 10, 18 and 26: Steele discloses that the still pictures contain scene-changing still pictures (figure 5(42); figure 7(52); and column 6, lines 31-35 of Steele); and that the determining unit transmits the scene-changing still pictures (figure 5(42); column 6, lines 31-35; and column 8, lines 48-52 of Steele) since the scene-changing still pictures are the important key markers to present to the user to get an understanding of the corresponding video segment (column 8, lines 48-55 of Steele). Scene-changing still pictures are thus transmitted as the primary pictures to be transmitted for the user to view regarding the corresponding video (column 8, lines 48-55 of Steele).

Steele does not disclose expressly that the still pictures also contain non-scene-changing still pictures; and that the determining unit determines the transmission sequence be such that the scene-changing still pictures are transmitted prior to the non-scene-changing still pictures.

Hori discloses a collection of thumbnail still pictures taken from video data (figure 2 and column 8, lines 9-11 of Hori) which includes scene-changing still pictures (column 11, lines 8-13 of Hori) and non-scene-changing ("arbitrary time intervals") still pictures (column 8, lines 9-12 of Hori). In Hori, the scene-changing still pictures are also considered more important than the non-scene-changing still pictures since the scene-changing still pictures are created without decimation (column 11, lines 8-13 of Hori).

Steele and Hori are combinable because they are from the same field of endeavor, namely digital still picture sampling and presentation of video data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include non-scene-changing still pictures, as taught by Hori, in the transmitted picture stream taught by Steele. Since the scene-changing still pictures are clearly more important, as taught by both Steele and Hori, one of ordinary skill in the art at the time of the invention would obviously transmit the scene-changing still pictures before the non-scene-changing still pictures. The motivation for doing so would have been to provide the user with additional data regarding a particular scene or scenes within the video the user is considering downloading, thus allowing the user to better determine if the video is worth ordering for download. Therefore, it would have been obvious to combine Hori with Steele to obtain the invention as specified in claims 2, 10, 18 and 26.

Regarding claims 8, 16, 24 and 32: Steele discloses that the control unit creates a table (figure 7(52) and column 8, lines 18-23 of Steele) including an offset value of a leading position of each still picture and its corresponding relative

location (figure 7(56) and column 8, lines 31-37 of Steele) in the picture stream (column 6, lines 17-21 and column 8, lines 33-34 of Steele), and wherein the transmission unit transmits the table and the sequenced still pictures (figure 7 and column 8, lines 10-16 of Steele).

Steele does not disclose expressly that the frame number, instead of the relative location, is included in the table; and that the transmission unit transmits the table prior to transmitting the sequenced still pictures.

Hori discloses storing the specific frame number of a still picture taken from a video stream (column 8, lines 9-15 of Hori); and placing the information regarding the thumbnails before the thumbnail data itself, or a pointer to said thumbnail data, in the thumbnail information (figure 3 and column 8, lines 3-8 of Hori). Thus, the information about the thumbnails is transmitted before the thumbnails themselves.

Steele and Hori are combinable because they are from the same field of endeavor, namely digital still picture sampling and presentation of video data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to specifically store the frame number of the still picture, as taught by Hori, as part of the table taught by Steele. The motivation for doing so would have been to be able to specify precisely the time position of the still frame being viewed. Specifying the frame number, as taught by Hori, is more accurate than using a sliding marker that shows a relative location, as taught by Steele, and would thus be more desirable. Further, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to transmit meta-data regarding the still pictures before the still pictures

themselves, as taught by Hori, said meta-data being the table taught by Steele. Thus, the transmission unit would transmit the table prior to transmitting the sequenced still pictures. The motivation for doing so would have been to have the meta-data available, such as image format, image size, and relative temporal position within the picture stream (figure 3 of Hori), thus giving the receiving system the information needed to properly render the still picture data for the user. Therefore, it would have been obvious to combine Hori with Steele to obtain the invention as specified in claims 8, 16, 24 and 32.

Regarding claims 33, 36, 39 and 42: Steele discloses a display apparatus (figure 2(10) and column 5, lines 22-28 of Steele) comprising a still picture receiving unit configured to receive a table (figure 7 and column 8, lines 18-23 of Steele) having values corresponding to a sequence of the plurality of still pictures included in the picture stream (column 8, lines 31-37 of Steele), and configured to receive (column 6, lines 21-24 of Steele) any still pictures transmitted from an external apparatus (column 6, lines 12-18 of Steele); a still picture memory unit coupled to the receiving unit, and configured to store the table and any received still pictures (column 6, lines 12-18 of Steele); a still picture control unit coupled to the memory unit, and configured to read the table (column 8, lines 15-23 of Steele); and a display coupled to the memory unit and the control unit, and configured to display the still pictures (column 8, lines 15-23 of Steele). In order to receive and display the still pictures (column 6, lines 12-18 of Steele) a memory unit for the still pictures is inherent since there otherwise be way to store still picture data on the user's computer for display. The client machine (figure 2(10) of

Steele) is a computer connected to the Internet (column 5, lines 22-28 of Steele). Thus, the still picture receiving unit, still picture memory unit, and still picture control unit are portions of the CPU resident on the client computer, along with the associated portions of physically embodied software and computer memory workspace, that perform the corresponding functions of the still picture receiving unit, still picture memory unit, and still picture control unit. The display is the monitor clearly shown that is a part of the client computer (figure 2(10) of Steele).

Steele does not disclose expressly that said still picture control unit determines whether or not a still picture corresponding to a value in the table is stored in the memory unit, and if the still picture is not stored in the memory unit, to select another still picture that is saved in the memory unit and is closest in sequence to the still picture; and that the display is configured to display the still pictures selected by the control unit.

Hori discloses determining whether or not a still picture corresponding to a value in the table is stored in the memory unit (column 12, lines 41-48 of Hori), and if the still picture is not stored in the memory unit, to select another still picture that is saved in the memory unit and is closest in sequence to the still picture (figure 6(S22,S24) and column 12, line 57 to column 13, line 6 of Hori). Given the disclosure in column 12, lines 49-56 of Hori and the flowchart of figure 6 of Hori, it is clear that the disclosure "when it is not found that the predetermined frame number is not between the start frame number and the scene change frame number" is a typographical error and should properly read "when it is found that the

predetermined frame number is not between the start frame number and the scene change frame number".

Steele and Hori are combinable because they are from the same field of endeavor, namely digital still picture sampling and presentation of video data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the still picture control unit taught by Steele to determine whether or not a still picture corresponding to a value in the table is stored in memory and, if not, select the still picture that is in memory which is closest in sequence to the originally selected still picture, as taught by Hori. The motivation for doing so would have been to display the frame that is currently available that most similar to the desired frame (column 13, lines 7-9 of Hori). Therefore, it would have been obvious to combine Hori with Steele to obtain the invention as specified in claims 33, 36, 39 and 42.

Further regarding claim 36: The units which comprise the apparatus of claim 33 provide the corresponding means which comprise the apparatus of claim 36.

Further regarding claim 39: The apparatus of claim 33 performs the method of claim 39.

Further regarding claim 42: As discussed above, the units of claim 33 are embodied as software and are thus the corresponding computer code which comprise the computer program product of claim 42.

Further regarding claims 34, 37, 40 and 43: Hori discloses that if the still picture is stored in the memory unit, the control unit selects the still picture to be displayed (column 12, lines 41-44 of Hori). If the predetermined frame is the

closest frame in memory, then the control unit would select the predetermined frame to be displayed.

Further regarding claims 35, 38, 41 and 44: Hori discloses that the control unit requests an external apparatus to transmit the still picture (column 13, lines 46-50 of Hori) when the control unit determines the still picture is not stored in the memory unit (column 13, lines 46-50 and column 14, lines 1-6 of Hori).

8. Claims 3, 11, 19 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steele (US Patent 5,884,056) in view of Hori (European Patent Application Publication 1 024 444 A2) and obvious engineering design choice.

Regarding claims 3, 11, 19 and 27: Steele discloses that the user can select to view a still picture of the video that lies temporally between two of the scene-changing still pictures already provided (column 9, lines 34-37 of Steele). An interval between the two scene-changing still pictures is selected by the user (column 9, lines 37-45 of Steele), thus selecting what would be a non-scene-changing still picture (column 9, lines 46-52 of Steele). This selection can even be performed iteratively to obtain the level of detail desired (column 9, lines 57-61 of Steele).

As discussed above in the arguments regarding claims 2, 10, 18 and 26, Hori discloses transmitting non-scene changing still pictures (column 8, lines 9-12 of Hori).

Steele in view of Hori does not disclose expressly that the determining unit determines the transmission sequence such that one of the non-scene-changing still pictures positioned in a middle of a largest interval between scene-changing still

pictures included in the picture stream is first transmitted after the scene-changing still pictures are transmitted.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have the determining unit taught by Steele determine the transmission sequence such that one of the non-scene-changing still pictures positioned in a middle of a largest interval between scene-changing still pictures included in the picture stream is first transmitted after the scene-changing still pictures are transmitted. Applicant has not disclosed that specifically transmitting one of the non-scene-changing still pictures positioned in a middle of a largest interval between scene-changing still pictures included in the picture stream as the first still picture transmitted after the scene-changing still pictures are transmitted provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with transmitting one of the non-scene-changing still pictures positioned in a different interval than the largest interval between scene-changing still pictures because the user may just as easily select a different interval to view in more detail.

Therefore, it would have been obvious to one of ordinary skill in the art to modify Steele in view of Hori in the manner set forth above to obtain the invention as specified in claims 3, 11, 19 and 27.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Thompson whose telephone number is 571-272-7441. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James A. Thompson
Examiner
Art Unit 2624

JAT
27 April 2005

THOMAS D LEE
PRIMARY EXAMINER